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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,925	03/31/2004	Youssef Drissi	END920040007US1	6345

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04/04/2008

EXAMINER

KANG, INSUN

ART UNIT	PAPER NUMBER
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2193

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/814,925	Applicant(s) DRISSI ET AL.	
	Examiner INSUN KANG	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☒ Claim(s) 15,20,30,42,44,45 and 51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>31 March 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers filed on 3/31/2004.
2. Claims 1-52 are pending in the application.

Specification

3. The use of the trademark JAVA (0002) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

The disclosure is objected to because of the following informalities: “it’s” in 0005 and 0022 needs to be corrected to “its.” Appropriate correction is required.

Claim Objections

4. Claims 15, 20, 30, 42, 44, 45, and 51 are objected to because of the following informalities:

Per claim 15, 20, 30, and 42, it appears that “based” and “a experience” need to be corrected to “based on” and “an experience” accordingly.

Per claim 44, ‘,’ is missing in line 5.

As per claim 45, this claim is objected for dependency on the above rejected parent claim 44.

Per claim 51, ‘.’ after “match” in line 2 needs to be removed.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 19-33 and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "the sets of source code" in line 5. There is insufficient antecedent basis for this limitation in the claim. Interpretation: the other sets of source code.

As per claims 20-24, these claims are rejected for dependency on the above rejected parent claim 19.

Per claims 25-33, it is not clear what the "system" means because the body of the claim does not support the preamble reciting "a system." The code reception system, language detection system, pattern extraction system etc recited in the claims are program instructions. Therefore, claims 25-33 reciting a system appears inaccurate lacking the necessary structural elements to be a physical system and support, even in its broadest reasonable sense, the preamble. Interpretation: a system is interpreted as a software system which is a program per se.

Per claim 51, it is unclear whether the developer in line 3 refers to the subscriber in claim 49. Interpretation: the subscriber.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 25-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 25-33 are non-statutory because they are directed to a system that does not have any physical structural elements. The body of the claims is directed to programs alone. With no other structure in the independent claim to rely on, the alleged “system” of the claims turns out to be an abstract idea for being a computer program per se, and, thus, does not fit within the definition of the categories of patentable subject matter set forth in § 101. Therefore, the claims are non-statutory. “A computer system having a processor” is recommended.

Claims 34-36 are non-statutory because they are directed to a best practice violation engine that is a program. The body of the claims reciting a test reception system, a test extraction system etc is directed program instructions. Therefore, the engine of the claims turns out to be an abstract idea for being a computer program per se, and, thus, does not fit within the definition of the categories of patentable subject matter set forth in § 101. Therefore, the claims are non-statutory.

The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101. http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes (US 2005/0160395), in view of Shimada (US patent 6,697,965).

Per claim 1:

Hughes discloses: receiving sets of source code from a plurality of sources (i.e. page 5, 0043, lines 20-29). Hughes does not explicitly teach extracting at least one code pattern from the sets of source code. However, Shimada teaches that such extraction of code pattern was known in the pertinent art, at the time applicant's invention was made, to identify a set of similar code fragments (i.e. col. 7 lines 5-15). It would have been obvious for one having ordinary skill in the art to modify Hughes' disclosed system to incorporate the teachings of Shimada. The modification would be obvious because one having ordinary skill in the art would be motivated to identify a repeatedly generated similar code pattern in Hughes.

Hughes further discloses defining meta data for each of the at least one code pattern that indicates a quality of the at least one code pattern (i.e. "compared to the specification and evaluated on their implementation of the specified functionality and compliance with the structured development methodology 220," page 5, 0043, lines 10-20; "methodology database,"

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page 12, 0103; 0048); assigning a rank to each of the at least one code pattern based on the corresponding meta data (i.e. page 10, 0088; page 11, 0090).

Per claim 2:

Hughes further discloses: wherein the rank is further based on a skill level of a developer of the at least one code pattern (i.e. page 6, 0051). Hugh and Shimada do not explicitly teach an experience level of the developer. However, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify Hughes and Shimada' disclosed rating criteria to include developer's experience for expediting the criteria if desired.

Per claim 3:

Hughes further discloses: determining a programming language of the sets of source code (i.e. "identify a language," 0046).

Per claim 4:

Hughes further discloses the meta data for each of the at least one code pattern identifies the programming language (i.e. "identify a language," 0046), a list of most used classes, a list of dependencies, a number and a type of objects created and used at run time and memory usage of the at least one code pattern (i.e. "measure memory usage," page 12, 0104). Hugh and Shimada do not explicitly teach the meta data identifying a list of most used classes, a list of dependencies, a number and type of objects created and used at run time. However, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify Hughes and

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Shimada's disclosed specification methodology to include other more performance metrics for code quality evaluation, if desired.

Per claim 5:

Hughes further discloses wherein the plurality of sources comprises a plurality of nodes interconnected in a peer-to-peer network environment, and wherein each of the plurality of nodes is operated by a developer (i.e. "distributed via the communications server 212 to a one or more developers....a distributed community of programmers," page 6, 0049; 0098).

Per claim 6:

Hughes further teaches registering the developers, prior to the receiving step (i.e. "posting subsystem 708 identifies the users based on their role or roles (0100)."

Per claim 7:

Hugh discloses collecting the skill level of developers (i.e. page 6, 0051) but does not explicitly teach that the registering step comprises collecting contact information and an experience level corresponding to the developers. However, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify Hughes and Shimada's disclosed code ranking system to register the participating developers collecting contact information and an experience level for the purpose of tracking each developers and expediting the ranking criteria.

Per claim 8:

Hughes further discloses: collecting feedback information about each developer from the other developers (i.e. “comments from the review board,” 0063; 0063).

Per claim 9:

Hughes further discloses: receiving a subsequent set of source code sources (i.e. page 5, 0043, lines 20-29); Shimada further discloses extracting a code pattern to be tested from the subsequent set of source code (col. 7 lines 5-15). Hughes further discloses classifying and comparing the code pattern to be tested to the at least one code pattern to determine a closest match to the code pattern to be tested (i.e. page 5, 0043, lines 10-20); assigning a rank of the closest match to the code pattern to be tested (i.e. page 10, 0088; page 11, 0090).; and detecting a software development best practice violation if the rank assigned to the code pattern to be tested fails to comply with a predetermined threshold (i.e. page 10, 0088) .

Per claims 10-17, they are other method versions of claims 1 and 9, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1 and 9 above.

Per claim 18, it is another method version of claim 9, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 9 above.

Hughes further discloses: receiving a first set of source code in a best practice violation (BPV) engine (i.e. col. 6 lines 0048, “The methodology can include best-practice,” 0048).

Per claims 19-24, they are other method versions of claims 1-9, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-9 above.

Per claims 25-32, they are the system versions of claims 10-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 10-17 above.

Per claim 33:

Hughes further discloses: a recommendation system for recommending at least one alternative to the code pattern to be tested if the deviation is detected (i.e. “aggregates the comments from the review board,” 0063).

Per claims 34-36, they are the BPV engine versions of claims 25-33, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 25-33 above.

Per claims 37-45, they are the product versions of claims 25-35, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 25-35 above.

Per claims 46-48, they are other BPV engine versions of claims 34-36, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 34-36 above.

Per claim 49, it is another method version of claim 18, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 18 above.

Hughes and Shimada do not explicitly teach that the developers subscribe to participate in the code ranking system. However, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify Hughes and Shimada’s disclosed code ranking system to require the participants to subscribe to use the system, if desired.

Per claims 50-51, they are the method versions of claims 33 and 36, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 33 and 36 above.

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Per claim 52:

Hughes and Shimada do not explicitly teach that the code ranking system is offered as a fee-based service to the subscriber. However, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify Hughes and Shimada's disclosed code ranking system to charge the participants to use the system, if desired.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-F 8:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis A. Bullock, Jr. can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Insun Kang/

Examiner, Art Unit 2193